


Three-phase Asymmetry and Phase-sequence Phase-loss Relay

K8DS-PA

Ideal for 3-phase Voltage Asymmetry Monitoring for Industrial Facilities and Equipment.

- Greater resistance to inverter noise. **NEW**
- Monitor voltage asymmetry, phase sequence, and phase loss in three-phase three-wire circuits with one unit.
- One SPDT output relay, 5 A at 250 VAC (resistive load).
- World-wide power specifications supported by one unit. (Set with a rotary switch.)
- Relay status can be monitored using LED indicator.

 Refer to *Safety Precautions* on page 8.
Refer to page 7 for commonly asked questions.



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Ordering Information

List of Models

	Rated input voltage*	Model
3-phase 3-wire mode	200, 220, 230, or 240 VAC	K8DS-PA1
	380, 400, 415, or 480 VAC	K8DS-PA2

Note: The input range is set with a rotary switch.

* The power supply voltage is the same as the rated input voltage.

K8DS-PA

Ratings and Specifications

Ratings

Rated input voltage	K8DS-PA1	Three-phase, three-wire Mode: 200, 220, 230, or 240 VAC
	K8DS-PA2	Three-phase, three-wire Mode: 380, 400, 415, or 480 VAC
Input load		K8DS-PA1: Approx. 1.7 VA K8DS-PA2: Approx. 2.8 VA
Operating value setting range (ASY.)		Asymmetry set value (%) = 2 to 22%
Operating value		Asymmetry operating value = Rated input voltage × Asymmetry set value (%) The asymmetry operation will function when the potential difference between the highest and lowest voltage phases equals or exceeds the asymmetry operating value.
Reset value		5% of operating value (fixed)
Reset method		Automatic reset
Operating time setting range (T)	Asymmetry	0.1 to 30 s
	Phase sequence	0.1 s±0.05 s
	Phase loss	0.1 s max.
Power ON lock time (LOCK)		1 s±0.5 s
Indicators		Power (PWR): Green, Relay output (RY): Yellow, Alarm outputs (ALM): Red
Output relays		One SPDT relay output
Output relay ratings		Rated load Resistive load 5 A at 250 VAC 5 A at 30 VDC Maximum switching capacity: 1,250 VA, 150 W Minimum load: 5 VDC, 10 mA (reference values) Mechanical life: 10 million operations min. Electrical life: 5 A at 250 VAC: 50,000 operations 3 A at 250 VAC: 100,000 operations
Ambient operating temperature		-20 to 60°C (with no condensation or icing)
Storage temperature		-25 to 65°C (with no condensation or icing)
Ambient operating humidity		25% to 85% (with no condensation)
Storage humidity		25% to 85% (with no condensation)
Altitude		2,000 m max.
Terminal screw tightening torque		0.49 to 0.59 N·m
Terminal wiring method		Recommended wire Solid wire: 2.5 mm ² Twisted wires: AWG16, AWG18 Note: 1. Ferrules with insulating sleeves must be used with twisted wires. 2. Two wires can be twisted together. Recommended ferrules Al 1,5-8BK (for AWG16) manufactured by Phoenix Contact Al 1-8RD (for AWG18) manufactured by Phoenix Contact Al 0,75-8GY (for AWG18) manufactured by Phoenix Contact
Case color		N1.5
Case material		PC and ABS, UL 94 V-0
Weight		Approx. 65 g
Mounting		Mounts to DIN Track.
Dimensions		17.5 × 80 × 74 mm (W×D×H)